WHAT IS CLAIMED IS:

1. An image sensing system comprising:

an image sensing element for photoelectrically converting incoming light from an image sensing optical system; and

an adjuster for adjusting a position of said image sensing element as an initial operation for an image sensing operation,

wherein said adjuster adjusts a relative position of said image sensing element with respect to the image sensing optical system by reading an adjustment pattern image using said image sensing element, and driving to adjust the position of said image sensing element on the basis of an output from said image sensing element.

2. The system according to claim 1, wherein said adjuster comprises:

an illumination unit for irradiating the pattern image with illumination light; and

a driver for driving to adjust the position of said image sensing element about horizontal and vertical directions as rotational axes to maximize contrast of the pattern image represented by the output from said image sensing element.

3. The system according to claim 1, wherein the image sensing optical system is exchangeable.

4. An image sensing system comprising:

an image sensing element for photoelectrically converting incoming light from an image sensing optical system;

an optical member which is inserted before said image sensing element to independently adjust optical path lengths in horizontal and vertical directions; and

an adjuster for adjusting an optical path of an optical image that enters said image sensing element by controlling said optical member prior to an image sensing operation,

wherein said adjuster reads an adjustment pattern image using said image sensing element, and adjusts said optical member to optimize a high frequency component of a signal output from said image sensing element.

5. A method of controlling an image sensing system which comprises an image sensing element for processing incoming light from an image sensing optical system, comprising:

an input step of reading an adjustment pattern image using the image sensing element as an initial operation for an image sensing operation; and

a position adjustment step of adjusting a relative position of the image sensing element with respect to the image sensing optical system by driving to adjust a position of the image sensing element on the basis of an output from the image sensing element.

6. The method according to claim 5, wherein the position adjustment step includes the steps of:

irradiating the pattern image with illumination light; and

driving to adjust the position of the image sensing element about horizontal and vertical directions as rotational axes so as to maximize contrast of the pattern image indicated by the output from the image sensing element.

7. The method according to claim 5, wherein the image sensing system uses an exchangeable image sensing optical system.

8. A method of controlling an image sensing system which comprises an image sensing element for processing incoming light from an image sensing optical system, and an optical member which is inserted before the image sensing element to independently adjust optical path lengths in horizontal and vertical directions, comprising:

an input step of reading an adjustment pattern image using the image sensing element prior to an image sensing operation; and

an adjustment step of the optical member to optimize a high frequency component of a signal output from the image sensing element.

9. An image sensing system comprising:

an image sensing element for photoelectrically converting incoming light from an image sensing optical system;

a memory for storing information that pertains to a relative position between said image sensing element and the image sensing optical system; and

an adjuster for adjusting a position of said image sensing element,

wherein said adjuster drives based on the information read out from said memory to adjust the relative position of said image sensing element with respect to the image sensing optical system.

10. The system according to claim 9, wherein said adjuster comprises a driver for changing a tilt of said image sensing element.

11. The system according to claim 9, wherein said driver changes a position of said image sensing element.

12. The system according to claim 9, wherein said memory stores an adjustment amount of said image sensing element from a predetermined position, and

said adjuster adjusts in accordance with the adjustment amount stored in said memory.

13. The system according to claim 12, wherein said memory stores the adjustment amount used to correct a tilt of an optical axis of the image sensing optical system with respect to a reference plane.

14. The system according to claim 12, wherein said memory stores the adjustment amount used to correct a tilt of said image sensing element with respect to a reference line.

15. The system according to claim 9, further comprising a temperature sensor,

wherein said memory stores an adjustment amount of said image sensing element for each of a plurality of temperatures.

16. The system according to claim 9, wherein the image sensing optical system comprises:

a field angle adjustment lens; and

a field angle manipulation unit for manipulating a field angle.

17. The system according to claim 16, wherein said memory stores an adjustment amount of said image sensing element from a predetermined position, which amount sets the image sensing optical system and said image sensing element in a predetermined relative state, for each of a plurality of field angles, and

said adjuster adjusts on the basis of the adjustment amount stored in said memory.

18. The system according to claim 9, wherein the predetermined relative state is a state in which an optical axis of the image sensing optical system is normal to a light-receiving surface of said image sensing element.

19. The system according to claim 9, wherein the image sensing optical system is exchangeable.

20. A method of controlling an image sensing system which comprises an image sensing element for photoelectrically converting incoming light from an image sensing optical system, wherein information that pertains to a relative position of the image sensing element with respect to the image sensing optical system is stored, and a position adjuster is controlled to adjust the relative position of the image sensing element with respect to the image sensing optical system on the basis of the information.

21. The method according to claim 20, wherein upon the adjustment, a tilt of the image sensing element is changed.

22. The method according to claim 20, wherein upon the adjustment, a position of the image sensing element is changed.

23. The method according to claim 20, wherein the image sensing system comprises a memory that stores an adjustment amount of the image sensing element from a predetermined position, and

the adjustment is done based on the adjustment amount read out from the memory.

24. The method according to claim 23, wherein the memory stores the adjustment amount used to correct a

tilt of an optical axis of the image sensing optical system with respect to a reference plane.

25. The method according to claim 23, wherein the memory stores the adjustment amount used to correct a tilt of the image sensing element with respect to a reference line.

26. The method according to claim 20, further comprising a temperature measurement step,

wherein the memory stores an adjustment amount of the image sensing element for each of a plurality of temperatures.

27. The method according to claim 20, wherein the image sensing optical system comprises:

a field angle adjustment lens; and

a field angle manipulation unit for manipulating a field angle.

28. The method according to claim 27, further comprising a step of detecting a field angle of the field angle adjustment lens, and

wherein a relative state between the image sensing optical system and the image sensing element is adjusted based on the detected field angle.

29. The method according to claim 27, wherein the image sensing system has a memory that stores an adjustment amount of the image sensing element from a predetermined position, which amount sets the image sensing optical system and the image sensing element in

a predetermined relative state, for each of a plurality of field angles, and

adjustment is done based on the adjustment amount read out from the memory.

30. The method according to claim 20, wherein the predetermined relative state is a state in which an optical axis of the image sensing optical system is normal to a light-receiving surface of the image sensing element.

31. The method according to claim 20, wherein the image sensing system has a first memory that stores an adjustment amount used to correct a tilt of an optical axis of the image sensing optical system with respect to a reference plane, and a second memory that stores an adjustment amount used to correct a tilt of the image sensing element with respect to a reference line, and

upon the adjustment, the adjustment amounts are read out from the first and second memories, the readout adjustment amounts are merged, and adjustment is done using the merged adjustment amount.

32. An image sensing system comprising:

an image sensing element for photoelectrically converting incoming light from an image sensing optical system; and

an adjuster for adjusting a relative state between the image sensing optical system and said image

sensing element on the basis of an operator's operation instruction.

33. The system according to claim 32, wherein the operation instruction indicates at least one of an image sensing region to be set in focus, an image sensing region to be set out of focus, and a depth of field.

34. The system according to claim 32, wherein said adjuster comprises a driver for changing a tilt of said image sensing element.

35. The system according to claim 32, wherein said driver changes a position of said image sensing element.

36. The system according to claim 32, wherein said adjuster adjusts a state of said image sensing element to set the image sensing optical system and said image sensing element in a predetermined relative state after adjustment based on the operation instruction.

37. The system according to claim 36, wherein the predetermined relative state is a state in which an optical axis of the image sensing optical system is normal to a light-receiving surface of said image sensing element.

38. The system according to claim 36, further comprising a memory that stores an adjustment amount of said image sensing element from a predetermined position, which amount sets the predetermined relative state,

wherein said adjuster adjusts in accordance with the adjustment amount stored in said memory.

39. The system according to claim 38, wherein said memory stores the adjustment amount used to correct a tilt of an optical axis of the image sensing optical system with respect to a reference plane.

40. The system according to claim 38, wherein said memory stores the adjustment amount used to correct a tilt of said image sensing element with respect to a reference line.

41. The system according to claim 32, further comprising a temperature sensor,

wherein said memory stores an adjustment amount of said image sensing element for each of a plurality of temperatures.

42. The system according to claim 32, wherein the image sensing optical system comprises a field angle adjustment lens, and

the operation instruction indicates a field angle.

43. The system according to claim 42, further comprising a memory that stores an adjustment amount of said image sensing element from a predetermined position, which amount sets the image sensing optical system and said image sensing element in a predetermined relative state, for each of a plurality of field angles,

wherein said adjuster adjusts on the basis of the adjustment amount stored in said memory.

44. The system according to claim 43, wherein the predetermined relative state is a state in which an optical axis of the image sensing optical system is normal to a light-receiving surface of said image sensing element.

45. An image sensing optical system which is detachably attached to an image sensing apparatus having an image sensing element, comprising:

a plurality of lenses; and

a memory that stores an adjustment amount used to correct a tilt of an optical axis of said image sensing optical system with respect to a reference plane to have a predetermined relative state.

46. The system according to claim 45, wherein the predetermined relative state is a state in which the optical axis of said image sensing optical system is normal to the reference plane.

47. The system according to claim 45, further comprising a temperature sensor,

wherein said memory stores an adjustment amount for each of a plurality of temperatures.

48. The system according to claim 45, wherein said plurality of lenses include a field angle adjustment lens, and

said memory stores an adjustment amount for each of a plurality of field angles.

49. An image sensing apparatus to which an image sensing optical system is detachably attached, comprising:

an image sensing element for photoelectrically converting incoming light from the image sensing optical system; and

an adjuster for adjusting a relative state between the image sensing optical system and said image sensing element on the basis of an operator's operation instruction.

50. The apparatus according to claim 49, wherein the operation instruction indicates at least one of an image sensing region to be set in focus, an image sensing region to be set out of focus, and a depth of field.

51. The apparatus according to claim 49, wherein said adjuster comprises a driver for changing a tilt of said image sensing element.

52. The apparatus according to claim 49, wherein said driver changes a position of said image sensing element.

53. The apparatus according to claim 49, wherein said adjuster adjusts said image sensing element to a predetermined relative state after adjustment based on the operation instruction.

54. The apparatus according to claim 53, wherein the predetermined relative state is a state in which a reference line is normal to a light-receiving surface of said image sensing element.

55. The apparatus according to claim 53, further comprising a memory that stores an adjustment amount of said image sensing element from a predetermined position, which amount sets the predetermined initial state,

wherein said adjuster adjusts based on the adjustment amount stored in said memory.

56. The apparatus according to claim 55, wherein said memory stores the adjustment amount used to correct a tilt of said image sensing element with respect to a reference line.

57. The apparatus according to claim 49, further comprising a temperature sensor,

wherein said memory stores an adjustment amount of said image sensing element for each of a plurality of temperatures.

58. The apparatus according to claim 49, wherein the image sensing optical system comprises a field angle adjustment lens, and

the operation instruction indicates a field angle.

59. The apparatus according to claim 58, further comprising communication means for reading an

adjustment amount held in the image sensing optical system,

wherein said adjuster adjusts based on the adjustment amount which is read via said communication means and corresponds to the operation instruction.

60. A method of controlling an image sensing system having an image sensing element for photoelectrically converting incoming light from an image sensing optical system, wherein a relative state between the image sensing optical system and the image sensing element is adjusted on the basis of an operator's operation instruction.

61. The method according to claim 60, wherein the operation instruction indicates at least one of an image sensing region to be set in focus, an image sensing region to be set out of focus, and a depth of field.

62. The method according to claim 60, wherein upon the adjustment, a tilt of the image sensing element is changed.

63. The method according to claim 60, wherein upon the adjustment, a position of the image sensing element is changed.

64. The method according to claim 60, further comprising an initialization step of adjusting a state of the image sensing element after the adjustment step

so as to set the image sensing optical system and the image sensing element in a predetermined relative state.

65. The method according to claim 60, wherein the predetermined relative state is a state in which an optical axis of the image sensing optical system is normal to a light-receiving surface of the image sensing element.

66. The method according to claim 64, wherein the image sensing system comprises a memory that stores an adjustment amount of the image sensing element from a predetermined position, which amount sets the predetermined relative state, and

the initialization step includes the step of reading out the adjustment amount stored in the memory, and adjusting based on the readout adjustment amount.

67. The method according to claim 66, wherein the memory stores the adjustment amount used to correct a tilt of an optical axis of the image sensing optical system with respect to a reference plane.

68. The method according to claim 66, wherein the memory stores the adjustment amount used to correct a tilt of the image sensing element with respect to a reference line.

69. The method according to claim 60, further comprising a temperature measurement step,

wherein the memory stores an adjustment amount of the image sensing element for each of a plurality of temperatures.

70. The method according to claim 60, wherein the image sensing optical system comprises a field angle adjustment lens, and

the operation instruction indicates a field angle.

71. The method according to claim 70, further comprising a step of detecting a field angle of the field angle adjustment lens, and

wherein the relative state between the image sensing optical system and the image sensing element is adjusted based on the detected field angle.

72. The method according to claim 70, wherein the image sensing system comprises a memory that stores an adjustment amount of the image sensing element from a predetermined position, which amount sets the image sensing optical system and the image sensing element in a predetermined relative state, for each of a plurality of field angles, and

wherein upon the adjustment, the adjustment amount stored in the memory is reading out, and adjustment is done based on the readout adjustment amount.

73. The method according to claim 72, wherein the predetermined relative state is a state in which an optical axis of the image sensing optical system is

normal to a light-receiving surface of the image sensing element.

74. The method according to claim 60, wherein the image sensing system has a first memory that stores an adjustment amount used to correct a tilt of an optical axis of the image sensing optical system with respect to a reference plane, and a second memory that stores an adjustment amount used to correct a tilt of the image sensing element with respect to a reference line, and

upon the adjustment, the adjustment amounts are read out from the first and second memories, the readout adjustment amounts are merged, and adjustment is done using the merged adjustment amount.

75. The method according to claim 64, wherein the image sensing system has a first memory that stores an adjustment amount used to correct a tilt of an optical axis of the image sensing optical system with respect to a reference plane, and a second memory that stores an adjustment amount used to correct a tilt of the image sensing element with respect to a reference line, and

the initialization step includes steps of reading out the adjustment amounts from the first and second memories, merging the readout adjustment amounts, and adjusting using the merged adjustment amount.

76. A computer program product comprising a computer usable medium having computer readable program code means embodied in said medium for controlling an image sensing system which comprises an image sensing element for processing incoming light from an image sensing optical system, said product including:

first computer readable program code means for reading an adjustment pattern image using the image sensing element prior to an image sensing operation; and

second computer readable program code means for adjusting a relative position of the image sensing element with respect to the image sensing optical system by driving to adjust a position of the image sensing element on the basis of an output from the image sensing element.

77. A computer program product comprising a computer usable medium having computer readable program code means embodied in said medium for controlling an image sensing system which comprises an image sensing element for photoelectrically converting incoming light from an image sensing optical system, said product including:

first computer readable program code means for controlling a position adjuster to adjust the relative position of the image sensing element with respect to the image sensing optical system on the basis of information, stored in advance, that pertains to a

relative position of the image sensing element with respect to the image sensing optical system.

78. A computer program product comprising a computer usable medium having computer readable program code means embodied in said medium for controlling an image sensing system having an image sensing element for photoelectrically converting incoming light from an image sensing optical system, said product including:

first computer readable program code means for adjusting a relative state between the image sensing optical system and the image sensing element on the basis of an operator's operation instruction.